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The application has been reviewed in light of the Office Action dated June 30, 2006.

Claims 10-14 and 21 were pending, with claims 10, 12-14 and 21 having been withdrawn by the Patent Office from examination. Claims 1-9 and 15-20 were previously canceled, without prejudice or disclaimer. By this Amendment, withdrawn claims 10, 12-14 and 21 have been canceled, without prejudice or disclaimer, new dependent claims 22 and 23 have been added, and claim 11 has been amended to clarify the claimed invention. Accordingly, claims 11, 22 and 23 are now pending, with claims 11 and 23 being in independent form.

Claim 11 was rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over U.S. Patent No. 5,764,245 to Yokoi in view of U.S. Patent No. 5,143,904 to Minato et al.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 11 and 23 are patentable over the cited art, for at least the following reasons.

This application relates to improvements to an ink-jet recording apparatus which enable the apparatus to print on both sides (that is, front and back) of a recording medium, with the vertical orientations of the sides coinciding (that is, the top of the page on the front side and the top of the page on the back are towards the same end of the sheet). In one example of an improved ink-jet recording apparatus, the apparatus has a memory for storing a page of image data that is used for printing image on the back side of the recording medium, the front side of which has been already printed, and the apparatus sends the image data to the ink-jet recording head in the reverse order so that the image data is printed on the back side of the recording medium from bottom to top direction. Independent claims 11 and 23 address these features, as well as additional features. The use of the memory to store a page of image data to be printed on

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the back side, enables the printing to start from the bottom of the image.

The cited art does not teach or suggest such features.

Yokoi, as understood by Applicant, proposes a recording apparatus which utilizes a line buffer to receive and temporarily store data from a host computer for a scanning line of the image to be printed.

Yokoi, column 3, lines 30-48 (cited in the Office Action), states as follows:

"Although in a recording process for the other side, the recording means faces to the recording medium in a condition that the data are reversed with respect to stages and columns against the serial recording data expandable to H stages and M columns, the recording means can perform recording work at the similar position and similar scanning direction to those of recording on one side because the reversed serial data in which data of the stage H and the column M constitute data of the first stage and the first column are transmitted from the line buffer memory to the recording means.

Thus, even for recording work for the other side, the recording apparatus records in a direction from the upper end to the lower end of the recording medium, so that it is enough for the recording apparatus to hold the serial recording data only of one scanning line of the recording means sequentially sent out of a host computer, and so that a large capacity buffer memory will be unnecessary."

Thus, Yokoi specifically teaches that utilizing the recording apparatus proposed therein avoids the use of a large capacity buffer memory. Since Yokoi teaches away from an ink-jet recording apparatus which has a memory for storing a page of image data that is used for printing image on the back side of the recording medium, Yokoi, alone or in combination with other references, simply would not have rendered the subject matter of claim 11 obvious.

Minato, as understood by Applicant, proposes a dye image-receiving sheet for thermal transfer printing. Minato was cited in the Office Action as purportedly proposing a recording medium which has a base member and granular material coated on both sides of the base member, and roughness of the surfaces of the recording medium coated granular material is smaller than the roughness of the base member.

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Applicant does not find disclosure or suggestion in the cited art, however, of an ink-jet recording apparatus which has a memory for storing a page of image data that is used for printing image on the back side of the recording medium, the front side of which has been already printed, wherein the apparatus sends the image data to the ink-jet recording head in the reverse order so that the image data is printed on the back side of the recording medium from bottom to top direction, as provided by the subject matter of claim 11.

Independent claim 23 is patentably distinct from the cited art for at least similar reasons.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 11 and 23 and claims depending therefrom are patentable over the cited art.

In view of the claim amendments and remarks above, Applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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